Sustainable procurement criteria for examination and surgical gloves



Version 2.0 - March 2022

SUSTAINABLE PROCUREMENT QUICK GUIDE » CRITERIA FOR EXAMINATION AND SURGICAL GLOVES

The purpose of this document is to provide a set of standardized tender criteria addressing priority sustainability issues for examination and surgical gloves.

Scope

- The criteria cover surgical and exam gloves only, not gloves for other uses.
- Required criteria should be considered minimum sustainability requirements while award criteria are optional. Sustainability requirements include social and environmental criteria.
- Criteria include only sustainability-related requirements. Every health system should consider a full range of performance requirements in addition to sustainability, including regional requirements. Considerations include: level of barrier protection for biological and chemical substances, labeling, leakage, durability, flexibility, freedom from holes, force at break (N)/ tensile strength (MPa) (after aging), powder residue content, aqueous soluble protein content, extractable antigenic protein content, and sterility. For example, see Technical specifications of personal protective equipment for COVID-19 on pages 10-11.
- The World Health Organization recommends for medical exam gloves (non-sterile): EN 455 ASTM D6319, D3578, D5250, or D6977 EN 374, optional additional or alternative equivalent set of standards. WHO recommends, for sterile surgical gloves: EN 455 ASTM D3577. Sterility: United States Pharmacopeia EN ISO 11607 or an alternative equivalent set of standards. Standards across regions may vary but should be equivalent to the standards referenced.
- When possible, health care procurers should employ the best price-quality ratio or best value procurement in product selection. This enables a tender to be evaluated against award criteria to ensure environmental and social considerations are incorporated into the contract.
- These criteria will be updated periodically to reflect market developments and procurement best practices. We welcome feedback and suggestions.
- Many of these criteria are adapted from the United Nations Development Programme and Health Care Without Harm's Sustainable Procurement Index for Health (SPIH). The SPIH <u>user guidance</u> may offer additional instruction.

	Required criteria		
	Supply chain management specifications (corporate-wide)	Notes	
1	Supplier has an anti-corruption policy in place that includes contractors and subcontractors.	Many resources are available to assist in drafting and reviewing a policy.	
2	Supplier has a forced labor/modern slavery policy or code of conduct in place and requires suppliers to implement these standards within their own supply chain, in line with the company's policy/code of conduct.	Business enterprises should respect human rights. This means they should avoid infringing on the human rights of others and should address adverse impacts with which they are involved. In 2016, over 21 million people were the victims of forced labor.	
3	Supplier has mapped their supply chain, including raw materials, to understand potential risks of forced labor/modern slavery.	The entire supply chain includes: Tier 1, or suppliers who work directly with vendors; Tier 2, or suppliers who provide Tier 1 with materials; and Tier 3, or suppliers who supply Tier 2 or work in raw materials.	
4	Supplier must provide Code of Conduct/modern slavery audits for any factories producing products. Audits must assess health and safety, working environment, working conditions, human rights, and the environment. The audit should be no more than two years old.	Recent reports have documented worker exploitation around glove manufacturing including forced labor, poor working conditions, and debt bondage. The U.S. Customs and Border Protection agency barred-some products from being distributed in the country after finding reasonable evidence of forced labor. Allegations of abuse in glove production also include passport confiscations, illegal withholding of pay, and restricted freedom of movement. Glove production has also been identified by the U.S. Department of Labor as a high-risk category for child and forced labor.	
5	Suppliers must report the percentage of migrant workers at sites. Factories with more than 10% migrant workers must have policies to ensure migrant workers are protected, that there are zero recruitment fees, and that workers are not deprived of passports or other ID. It is desired but not required that the supplier submit a copy of the audit of compliance with this requirement.	Recent reports have documented exploitation of migrant workers at manufacturing sites.	
6	Upon request, suppliers shall provide addresses of all sites involved in manufacturing the product.	Providing this information allows procurers the possibility of verifying supplier information.	
7	The contract must be performed in accordance with the International Labour Organization's eight core conventions (forced labor, child labor, discrimination, freedom of association, and the right to organize - Nos. 29, 87, 98, 100, 105, 111, 138, and 182). Suppliers shall ensure conditions are met throughout the supply chain, including by subcontractors.	Requiring potential suppliers to abide by UN ILO Conventions ensures materials supplied have been produced responsibly and can reduce company risks. See the requirements for this criterion on the Swedish National Procurement Agency website.	

8	Supplier ensures their management team is regularly informed of forced or compulsory labor/modern slavery risks and involved in related decision-making.	In 2016, more than 21 million people were victims of forced labor. Compliance, financial, and reputational risks are associated with the presence of modern slavery anywhere in the supply chain.
9	Supplier has measured Scope 1 and 2 greenhouse gas (GHG) footprint or conducted a GHG inventory throughout the company's operations (headquarters and manufacturing) by a recognized methodology (GHG protocol or equivalent). Supplier has also made the GHG footprint or inventory results publicly available. (See Annex 2 Table A for recognized methodologies.)	Climate impacts throughout the lifecycle of gloves include resource extraction, production, transport, and waste disposal. A <u>recent study</u> in the United Kingdom estimated that gloves accounted for 45% of the total carbon footprint of all personal protective equipment used during the study period. Equivalence measured by <u>World Resources Institute GHG protocol</u> .
	Product specifications	Notes
10	Products that are sterilized should use radiation methods for sterilization.	Radiation processes like gamma radiation do not create residuals and avoid the use of hazardous chemicals like ethylene oxide.
11	Supplier shall provide the average weight per unit (g/unit) of the medium-sized product and the permitted error range.	This information will inform the assessment of resource consumption and waste generation.
12	In the pre-clinical evaluation, disposable medical gloves should be tested according to: a) EN ISO 10993-5 (Biological evaluation of medical devices, Part 5: in vitro cytotoxicity testing), b) EN ISO 10993-10 (Biological evaluation of medical devices, Part 10: Test for irritation and skin sensitization) or equivalent standard.	These International Standardization Organization standards address the evaluation of health products for biological impacts, such as cytotoxicity and skin sensitization evaluation.
13	Product does not contain polyvinyl chloride (PVC).	PVC is derived from vinyl chloride, a known human carcinogen. Burning PVC can result in the formation of highly toxic chemicals. Recycling PVC is challenging and can hinder the recycling of other kinds of plastic.
14	Product does not contain phthalates, esters of orthophthalic acid, at concentrations above 50 ppm (50 mg/kg) per substance, including di (2-ethylhexyl) phthalate) (DEHP).	Ortho-phthalates have been linked to hormone disruption, reproductive and developmental impacts, kidney toxicity, and increased risk of asthma. Exposure to some phthalates during critical periods of development can interfere with testosterone production and disrupt normal male reproductive tract development. Recent studies also show that prenatal exposure to phthalates is associated with adverse impacts on neurodevelopment, including lower IQ, problems with attention and hyperactivity, and poorer social communication.
15	Product is not treated with or does not intentionally contain biocidal chemicals.	Human toxicity and ecotoxicity profiles differ among biocidal agents, but none are entirely benign. The unnecessary addition of biocidal agents can also contribute to more widespread antibiotic resistance.

16	Product is free of powder residue. The powder level in the product should not exceed 2 mg/glove.	Latex proteins can become fastened to the lubricant powder used in some latex gloves. Powder can spread through the air and cause inflammation, knots in the connective tissue of the skin, and allergic reactions in the airways. Allergic reactions to powdered latex are well described in the literature. Test results (according to EN ISO 21171 or ASTM D6124) can serve as evidence of meeting this criterion.
17	Product is not treated with or does not contain substances intended to moisturize or soften the hands (skincare additives).	Avoiding unnecessary additives that do not contribute to the barrier properties of the glove can help reduce potential hypersensitivity. Substances added to gloves have the potential to be allergens.
18	Product is free of substances of high concern. The product offered shall not contain <u>substances listed</u> on the current candidate list (Article 59 of Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) in concentrations above 0.1% by weight (1000 mg/kg) per substance).	The REACH candidate list includes substances that are hazardous to humans or the environment that may be added to the REACH restriction list, so phasing out early is preferable. The candidate list is regularly updated by the European Chemicals Agency, with updates available on their website.
19	Product does not contain added bisphenol A (CAS No. 80-05-7) and any BPA structural analogs. Impurities/residues shall not be present in amounts over 0.01% by weight (100 mg/kg) in any individual part of the product. (See Annex 1, Table A for bisphenol A and analog definitions.)	BPA is a reproductive and developmental toxicant and endocrine disruptor. Emerging evidence finds an association between prenatal or postnatal exposure to BPA and a variety of adverse health outcomes. Listed BPA structural analogs are also prohibited because virtually all currently studied have some evidence of toxicity.
20	Supplier will provide a list of accelerants and other allergens contained in the product (such as thiurams, dithiocarbamates, or thiazoles). A specification sheet or other disclosure with this information is sufficient to meet this criteria.	Many gloves are made with accelerants that can be contact allergens and cause skin irritation or sensitization. Recent research suggests a small percentage of users (3.6%) with suspected allergic contact dermatitis were found to react to an accelerant. Transparency of product ingredients is critical for assessing potential occupational and environmental risks throughout a product's life cycle, including potential exposures during use.
21	Product does not contain dyes in concentrations above 0.1% by weight. (See Annex 1, Table B for chemical lists.)	Identified dyes have a variety of associated hazard properties. For example, some azo dyes can break down into more hazardous aromatic amines that are mutagenic and carcinogenic.
22	Product does not contain the following fluorinated substances in concentrations above 0.1% by weight. (See Annex 1, Table C for chemical lists.)	Perfluorinated compounds are generally highly persistent chemicals or break down into highly persistent chemicals. They have been called "forever chemicals" because of their extreme persistence.
23	Product does not contain medium chain chlorinated paraffins (MCCP), CAS No. 85535-85-9, in concentrations above 0.1% by weight.	Similar to short chain chlorinated paraffins, medium chain chlorinated paraffins may be persistent, bioaccumulative, and toxic to aquatic organisms at low concentrations.

	Packaging specifications	Notes
24	The supplier should avoid packaging materials for which recycling schemes are unlikely to be established: a) polyvinyl chloride, b) polyvinylidene chloride, c) polystyrene, d) expanded polystyrene, e) regenerated cellulose, and f) non-recyclable plastics/paper combinations.	
25	The supplier should avoid packaging additives that impede recycling: a) halogenated organic compounds, b) phthalates, c) organotin compounds, d) compounds based on lead, cadmium, chromiumVI and mercury, e) dimethylfumarate (DMFu, CAS No. 624-49-7), f) bisphenols, g) carbon-based master-batches, such as carbon black pigments (CAS No. 1333-86-4). Impurities up to 100 ppm are permitted.	
26	Suppliers reduce product waste through improvements in packaging design, such as preventing multiple gloves being dispensed at once.	A study from Region Skåne showed that 6% of gloves were discarded due to falling on the floor and becoming unusable.
27	Packaging shall be reduced to the extent possible.	Suppliers should minimize packaging while ensuring it prevents damage and preserves product integrity. Packaging should be appropriate for the size, shape, and weight of products. If excess packaging can be eliminated, significant resource and cost savings can be achieved.
28	Packaging should be selected based on ease of recycling.	For example, suppliers should use packaging that easily allows the reclamation of mixed materials with minimum effort and avoid bonding systems that prevent separation of individual materials. Labels should be recyclable or easy to remove to support recycling, alternatively using embossing or in-mold direct printing.
29	Secondary and tertiary packaging should be made of recycled material and Forest Service Certified (FSC) or equivalent for paper products.	FSC certification ensures products come from responsibly managed forests that provide environmental, social, and economic benefits.
30	Suppliers should prioritize the use of packaging that does not contain plastics.	

End of required criteria

	Award/desired criteria		
	Supply chain management specifications (corporate level)	Notes	
A1	Supplier incorporates measurable diversity and inclusion processes and goals into recruitment, training, remuneration, performance evaluation, ownership, and other structures and through supply chain, including women, individuals with disabilities, and migrants. Company collects statistics demonstrating this commitment.		
A2	Supplier provides general training on modern slavery to all staff and additional training to staff who have special responsibilities related to modern slavery risks.		
А3	Supplier reports Code of Conduct audit results that are no more than two years old and performed by a third party according to established methods such as Social Accountability (SA8000), Sedex Members Ethical Trade Audit (SMETA) IV pillar, Business Social Compliance Initiative (BSCI) or equivalent. The supplier should report identified risks d in the audit and how these risks have been assessed in the supply chain.		
A4	Supplier's manufacturing sites are certified to recognized environmental management standards, such as International Standardization Organization (ISO) 14001, ISO 14040 (Environmental management, life cycle assessment), and ISO 14025 (Environmental Product Declarations) or equivalent.	Environmental management systems can improve health and safety practices for employees and the public, help address non-regulated issues such as energy conservation, and promote stronger operational control and risk reduction.	
A5	Supplier discloses percentage of renewable energy used in manufacturing.		

A6	Supplier provides third party-verified measurements of greenhouse gas emissions across the supply chain including manufacturing (carbon footprint or GHG inventory must include Scope 1 and 2 at a minimum). Supplier specifies methods used, such as the Carbon Disclosure Project (CDP) or others using the Greenhouse Gas Protocol.	Climate impacts from gloves include resource extraction, production, transport, and waste disposal. A recent study in the UK estimated that gloves accounted for 45% of the total carbon footprint of all P used during the study period. Scope 1: Direct emissions from owned or controlled	
A7	Supplier has a policy or plan that addresses GHG emission reductions and has a person responsible for GHG-related matters.	sources. Scope 2: Indirect emissions from electricity generation steam, heating, and cooling consumed by the vendo	
A8	Supplier has a carbon reduction plan in place for Scope 1 and 2 emissions. The targets and reduction plans are publicly available.	Scope 3: All other indirect emissions that occur in a value chain.	
А9	Supplier reports to a voluntary GHG reporting mechanism.	A carbon reduction plan should document specific actions that the organization has put in place that are applicable for the next five years, including energy	
A10	Supplier measures Scope 3 emissions for business travel, upstream emissions, and downstream emissions. Downstream emissions include sterilization, transport, storage, and disposal.	efficiency, renewable energy, reducing process emissions, or training and skills development. It may also quantify potential benefits and set targets.	
A11	Supplier has a carbon reduction target in place for Scope 3 emissions. Company has adopted science-based targets in line with the Paris Agreement.		
A12	Supplier uses low-emission modes of transport for delivery of raw materials and distribution, such as EPA SmartWay or equivalent program.		
A13	Supplier procedures are in line with ISO 50001 or a similar energy management approach.		
A14	If the product contains new substances that were added to the <u>current candidate list during</u> the contract period, within six months of the list being updated, the vendor shall present an action plan for phasing out the substances.	Substances listed on the current candidate list (article 59 of regulation No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) in concentrations above 0.1% by weight (1000 mg / kg) per substance).	
A15	Supplier has quantified water use at the manufacturing stage and uses water conservation technologies.		
A16	Supplier tracks and reduces production waste. Supplier avoids incineration to dispose of production waste.		
A17	Supplier is rated or certified on ESG performance and indicates the rating or certifying entity.	ESG means environmental, social, and governance, such as GRI reports. ESG covers a wide range of issues that are not traditionally covered in financial analysis.	

A18	Supplier requires Tier 1 suppliers to have a carbon reduction policy and target to manage emissions from the product supply chain.	Tier 1 includes suppliers who work directly with vendors.
A19	Supplier measures GHG emissions from product supply chain. Supplier collects data from the supply chain on emissions that informs decision-making to help reduce emissions.	
	Product specifications	Notes
A20	For surgical gloves: Product must not include the accelerant diphenylguanidine (CAS No. 102-06-7).	Recent research suggests a small percentage of users (3.6%) with suspected allergic contact dermatitis were found to react to accelerants.
A21	Product must not include chemicals that have a harmonized classification as skin sensitizers under the Classification, Labeling, and Packaging Regulation, such as chromium VI, nickel, and cobalt compounds. For more information, see this ECHA announcement. See also Annex XV on proposing restrictions on skin sensitizing substances, Table 19 (pages 108-128).	A wide variety of health and ecosystem concerns are associated with the toxic metals prioritized in this criterion, including neurotoxicity, cancer, reproductive and developmental effects, and aquatic toxicity.
A22	Weight of product should be standardized and disclosed. Products with the lowest unit weight value should be preferred while meeting quality standards.	The information will inform the assessment of resource consumption and waste generation.
A23	Supplier shall disclose a list of chemicals used in their products that are known to cause adverse health and environmental effects based on authoritative lists of chemicals of concern.	Lists of chemicals with adverse health and environmental effects include: <u>EU Cosmetics Directive list of carcinogens</u> , mutagens, and reproductive toxicants, EU substances classified as <u>carcinogenic</u> , mutagenic, <u>or toxic for reproduction (CMR 1A/1B)</u> or endocrine-disrupting substances in amounts over 0.1% in Medical Devices Directive in the <u>REACH list of restricted substances</u> ; and <u>RoHS Directive list of restricted substances</u> in electrical and electronic equipment. Product ingredient transparency is critical to understanding potential occupational, health, and environmental risks of products throughout their life cycle and assessing potential exposures during use.
A24	Product does not contain per- or poly-fluorinated alkyl substances or any fluorinated organic chemicals containing at least one fully fluorinated carbon atom above 100 ppm total fluorine.	Perfluorinated compounds are generally highly persistent or break down into highly persistent chemicals. They have been called "forever chemicals" because of their extreme persistence. Some but not all bioaccumulate. They are regularly found in people and animals in all areas of the planet. Health effects of the most well studied include high cholesterol, thyroid disorders, pregnancy-induced hypertension and preeclampsia, cancer (testicular and kidney), and altered metabolism. Many of these compounds have not been adequately evaluated.

	Packaging specifications	Notes
A25	Paper/carton/paperboard/wooden pallets are chain of custody certified under the Forest Stewardship Council (FSC) system or equivalent.	FSC certification ensures that products come from responsibly managed forests that provide environmental, social, and economic benefits.
A26	Cellulose in packaging must be of recycled, unbleached pulp or bleached without chlorine gas, such as according to the TCF or ECF method. The AOX (absorbable organic halides) emissions to the recipient must not exceed 0.25 kg/ton of pulp.	Chlorine bleaching creates byproducts that pose risks to human health and the environment.
A27	Suppliers use homogenous materials in packaging.	The use of homogenous materials helps facilitate recycling.
A28	Packaging has a high percentage of recycled content without compromising performance.	
A29	Supplier has implemented an Extended Producer Responsibility scheme that allows the separate collection of product and packaging waste and supports recycling.	Extended Producer Responsibility (EPR) is a critical policy mechanism to help advance a zero-waste future and a circular economy. EPR shifts responsibility for postconsumer management of products and packaging from local governments to producers.

Innovation/market dialogue

Innovation in glove material selection, manufacturing, reuse, and disposal is still needed to reduce material and energy consumption, reduce waste, and protect health and the environment.

Product and materials

- Develop new non-fossil fuel-based materials for the product.
- Explore the possibility of safely using recycled material in the product.
- Create a high-performing product that can be reused.
- Provide for raw materials supply tracing.
- Product data sheet should include all chemicals being used at each stage of production (such as accelerants or biocides) and any residues left in the final product.

Manufacturing

- Shorten supply chains with more localized manufacturing of final product.
- Optimize manufacturing to reduce material used (for example reduce weight and thickness) while maintaining high performance standards.
- Innovation is needed to avoid using accelerators in the manufacturing process, especially DPG.

End of life

- Create circular systems to recover, recycle, and manufacture products that are easily recyclable (according to circular economy and extended producer responsibility principles) including addressing product design for recycling. Waste to energy is not considered a sustainable solution.
- Commit to establish an extended producer responsibility system, such as one that allows separate collection of product waste and subsequent treatment by recycling (preferably) or another type of recovery by transport and delivery to an authorized waste manager.
- Innovation is needed in recycling, not downcycling.

Life cycle assessment

• Life cycle methodologies and quality differ from manufacturer to manufacturer. Innovation is needed to improve, standardize, and strengthen life cycle assessments.

Suggestions for contract obligations

This section provides suggested obligations to include in contracts to ensure required environmental and social criteria are met:

- Set goals and timelines and require progress reports toward achievement of desired environmental and social criteria.
- Monitor adherence to social and environmental requirements and address non-compliance with contract requirements, such as a clause allowing the buyer to conduct scheduled or unscheduled audits.
- Require the supplier to ensure conditions are met by subcontractors who directly participate in the performance of the contract, regardless of the number of intermediaries. The supplier shall also ensure subcontractors participate in followup, which may include requirements for third party-verified certifications.
- Require the supplier to report routines for systematic quality work as well as documented procedures and instructions to ensure:
 - Requirements for the product are fulfilled during the contract period.
 - Documentation proving requirements are met is available.
 - There is a contact person with the contracting authority.
- To ensure compliance with the above points, procedures, and instructions should include at least the following:
 - Monitoring and logging (for example, regular inspection of raw material and product quality).
 - Reporting and treatment of deviations related to the requirements.
 - Reporting and documentation of production changes.
 - Reporting, documentation, and handling of complaints.
 - Traceability throughout the supply chain.
- Risk assessments of modern slavery with potential suppliers are carried out before entering into any production agreements. Risk assessments may include migrant worker protections, retention of document policy, recruitment fees, or worker grievance procedures and remediation practices.
- Risk assessments help identify potential modern slavery risks and impacts that may be hard to identify through audits.
- · Requirements for third party-verified certifications are available where applicable.

Annex 1

Table A - Bisphenol A (BPA) and its analogs

Structural analogs to be avoided include bisphenol AP, bisphenol AF, bisphenol B, bisphenol C, bisphenol CI2, bisphenol E, bisphenol F, bisphenol G, bisphenol M, bisphenol S, bisphenol PH, bisphenol TMC, bisphenol Z, and 4-cumylphenol (HPP).

A more extensive list of structural analogs to be avoided includes any compound with the following characteristics:

- 1. All compounds with a Tanimoto Coefficient of 0.9-1.0 (compared to bisphenol-A CASRN 80-05-7) are restricted. For these purposes, Tanimoto Coefficients are obtained at EPA's CompTox Dashboard.
- 2. Any compound with a Tanimoto Coefficient of 0.8-0.9 is restricted until there are publicly available, valid in vitro or in vivo hazard data that enable evaluation of estrogen and androgen receptor agonism and antagonism. If a compound does not have significant endocrine-disrupting potential, it would not be included.
- 3. Chemicals with a Tanimoto Coefficient of <0.8 would be restricted if either of the following are true:
- a) the compound has demonstrated endocrine-disrupting potential (estrogen or androgen receptor agonism or antagonism) and is used as a functional substitute for BPA, or
- b) the compound is detected in environmental media or human biomonitoring studies and is used as a functional substitute for BPA and publicly available hazard data to evaluate endocrine-disrupting potential (estrogen or androgen receptor agonism or antagonism) are lacking.

Note: If the compound is detected in environmental media or human biomonitoring studies and is used as a functional substitute for BPA but has sufficient publicly available hazard data to demonstrate it does not have endocrine-disrupting potential (estrogen and/or androgen receptor agonism and/or antagonism), it is not restricted.

Table B: Dyes

Substance	CAS number
Dinatrium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl] -4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene -2,7-disulfonate	1937-37-7
Disodium 3,3'-[[1,1'-biphenyl]- 4,4'-diylbis(azo)]bis(4-aminonapthalene-1-sulfonate)	573-58-0
4-o-tolylazo-o-toluidine	97-56-3
(6-(4-hydroxy-3-(2-metoxyphenylazo) -2-sulfonate-7-naphtylamin) - 1,3,5-triazin-2,4-diyl) bis[(amino-1-metyletyl) ammonium] formate	108225-03-2

Disodium[5-[[4'-[[2,6-dihydroxy-3-[(2-hydroxy-5-sulphophenyl)azo]phenyl]azo][1,1'-bi-phenyl]-4-yl]azo]salicylato(4-)]cuprate(2-) (Cl Direct Brown 95)	16071-86-6
Trisodium[4'-(8-acetylamino-3,6-disulfonato-2-naphthylazo)-4''-(6-benzoylamino-3-sulfonato-2-naphthylazo)-biphenyl-1,3',3'',1'''-tetraolato-O,O',O'',O''']copper(II)	164058-22-4
Tetrasodium 3,3'-[[1,1'-biphenyl]- 4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphtalene-2,7-di-sulfonate]	2602-46-2
4-aminoazobenzene	60-09-3

Table C: Fluorinated substances

Substance	CAS number
Heneicosafluoroundecanoic acid (PFUnDA)	2058-94-8
Heptacosafluoro-tetradecanoic acid (PFTeDA)	376-06-7
Pentadecafluorooctanoic acid (PFOA)	335-67-1
Pentacosafluorotridecanoic acid (PFTrDA)	72629-94-8
Perfluorononan-1-oic acid (PFNA)	375-95-1
Ammonium pentadecafluorooctanoate (APFOA)	3825-26-1
Tricosafluorododecanoic acid (PFDoDA)	307-55-1

Annex 2

List from Sustainable Procurement Index for Health.

Acceptable methodologies for measuring Scope 1 and 2 emissions

- · ABI Energia Linee Guida
- Act on the Rational Use of Energy
- Australia National Greenhouse and Energy Reporting Act
- Bilan Carbone
- Brazil GHG Protocol Programme
- Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003
- China Corporate Energy Conservation and GHG Management Programme
- Defra Voluntary Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
- ENCORD: Construction CO2e Measurement Protocol
- Energy Information Administration 1605(b)
- · Environment Canada, Aluminum Production, Guidance Manual for Estimating Greenhouse Gas Emissions
- Environment Canada, Base Metals Smelting/Refining, Guidance Manual for Estimating Greenhouse Gas Emissions
- · Environment Canada, Cement Production, Guidance Manual for Estimating Greenhouse Gas Emissions
- Environment Canada, Primary Iron and Steel Production, Guidance Manual for Estimating Greenhouse Gas Emissions
- · Environment Canada, Lime Production, Guidance Manual for Estimating Greenhouse Gas Emissions
- Environment Canada, Primary Magnesium Production and Casting, Guidance Manual for Estimating Greenhouse Gas Emissions
- · Environment Canada, Metal Mining, Guidance Manual for Estimating Greenhouse Gas Emissions
- EPRA (European Public Real Estate Association) guidelines, 2011
- EPRA (European Public Real Estate Association) Sustainability Best Practice Recommendations Guidelines, 2017
- French methodology for greenhouse gas emissions assessments by companies V4 (ADEME 2016)
- Hong Kong Environmental Protection Department, Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings, 2010
- India GHG Inventory Programme
- IPCC Guidelines for National Greenhouse Gas Inventories, 2006

- ISO 14064-1
- Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superseded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)
- Korea GHG and Energy Target Management System Operating Guidelines
- New Zealand Guidance for Voluntary, Corporate Greenhouse Gas Reporting
- Philippine Greenhouse Gas Accounting and Reporting Programme (PhilGARP)
- Programa GEI Mexico
- Recommendations for reportingRecommendations for reporting significant indirect emissions under Article 173-IV (ADEME 2018)
- Smart Freight Centre: GLEC Framework for Logistics Emissions Methodologies
- Taiwan GHG Reduction Act
- · Thailand Greenhouse Gas Management Organization: The National Guideline Carbon Footprint for organization
- The Climate Registry: General Reporting Protocol
- The Cool Farm Tool
- The GHG Indicator: UNEP Guidelines for Calculating Greenhouse Gas Emissions for Businesses and Non-Commercial Organizations
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- The Tokyo Cap-and Trade Program
- Toitū carbon reduce programme
- Toitū carbon zero programme
- US EPA Mandatory Greenhouse Gas Reporting Rule
- · VfU (Verein fur Umweltmanagement) Indicators Standard
- Toitū carbon zero programme
- US EPA Mandatory Greenhouse Gas Reporting Rule [Regla de la EPA sobre la obligatoriedad de reportar gases de efecto invernadero]
- VfU (Verein fur Umweltmanagement) Indicators Standard